FACULTY OF DENTISTRY LIBRARY
UNIVERSITY OF TORONTO
3 1761 03912901 0

New, P.K., and New M.L.
The Collation and description of Canadian studies of the utlization of dentist services

RK
61
.N4
DENT

UNIVERSITY OF TORONTO
DENTAL LIBRARY

THE COLLATION AND DESCRIPTION OF CANADIAN STUDIES OF THE UTILIZATION OF DENTIST SERVICES

by

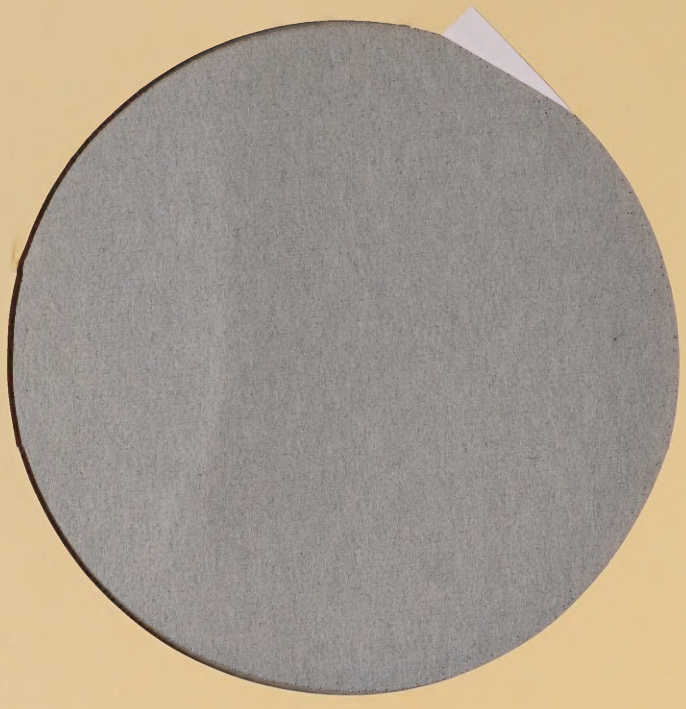
Peter Kong-ming New
and
Mary Louie New

RESEARCH REPORT

issued by the
Dental Health Care
Services Research Unit

RK
51
W4

HE FACULTY OF DENTISTRY UNIVERSITY OF TORONTO



AIC1697

RY
RONTO

THE COLLATION AND DESCRIPTION OF CANADIAN STUDIES OF THE UTILIZATION OF DENTIST SERVICES

by

Peter Kong-ming New
and
Mary Louie New

An Annotated Bibliography
prepared for the
Dental Health Care Services and Epidemiology
Research Unit
Faculty of Dentistry University of Toronto
March, 1975

This project was supported in full by
demonstration model grant DM 148 of
the Ontario Ministry of Health

RK
61
N4

▸ 10155

INTRODUCTORY COMMENTS

A number of Canadian studies of the public's utilization of dentists are described in the text and in the Annotated Bibliography appended to this report. Several U.S., British, and Canadian health care studies are used to explain reasons for use and non-use of health services and these findings are related to the Canadian dental experience. To date, only three national studies of dentist utilization by the public have been conducted: Canada's Sickness Survey 1950-1951; the 1967 Survey of Dental Care Received, conducted for National Health and Welfare by the Dominion Bureau of Statistics as part of the Labour Force Survey; and the Nutrition Canada Study's Dental Component. The results of this last study are not yet published.

As Peter and Mary New point out in this report, Canadian studies into the use of dentists are few in number and those that do exist generally lack a methodological framework. They further stress that dental utilization statistics isolated from other relevant factors, including oral health status and economic and geographic accessibility to care, are not too meaningful except as preliminary baseline information. In order to develop more meaningful data they propose a shift from descriptive utilization studies--the usual Canadian orientation--to analytical studies of the type recently completed in countries outside North America by the World Health Organization in conjunction with the Division of Dental Health (U.S.A.).*

D. W. Lewis, September 1975

* WHO/DDH International Collaborative Study of Dental Manpower Systems in Relation to Oral Health Status.

THE COLLATION AND DESCRIPTION OF CANADIAN STUDIES OF THE UTILIZATION OF DENTIST SERVICES.

by

Peter Kong-ming New and Mary Louie New

March 1975

Digitized by the Internet Archive
in 2025 with funding from
University of Toronto

https://archive.org/details/31761039129010

Introduction

The task of this paper is to review a number of recent papers on utilization of dental services in Canada and elsewhere. Further, we will draw on a number of papers which discuss the methodological and social implications on studies regarding utilization of dental and other health services.

The term, utilization, on one level purely connotes the frequency of use by the general population, within a certain time frame. At a more micro-level, it can be seen readily that there are many reasons that dictate an individual's use of particular types of dental services. At the more macro-level, broader structural and organizational components of the services must be investigated, such as the distribution of dental services or available third party payments. Thus, at best, a single number or percentage of persons who have seen a dentist within the past month or the past year says very little beyond the fact that we have a very rough indicator of how many persons have their dental needs looked after and how many others are neglecting their dental health.

On the single indicator of the proportion of persons in Canada who have been to a dentist within the past year, this varies between a low of 25% to a high of around 40%. However, as we stated earlier, in many ways, these are meaningless figures. In one report (Proctor and Gamble, 1962), for instance, through a mailed questionnaire answered by 1506 women, it was discovered that large proportions of these households have gone to dentists within the past six months: 60% in the Maritimes, 58% in Quebec, 71% in Ontario, 61% in the Prairies, 76% in British Columbia. If these figures were to be accepted, it would seem that the dental profession need have no concerns. However, in this report, there was an admission that "There is a slight bias present in that a higher proportion of the replies were received from high-income groups than from low-income groups.

The absolute figures in this study could be unreliable, but the relationships shown by these figures between regions of the country are probably true." The bias of the high-income group "over-reporting" on a self-administered questionnaire brings forth number of questions. Below, we deal with some of these specific social and demographic linkages with regard to utilization of dental services.

SOCIAL AND DEMOGRAPHIC LINKS

In an excellent recent review of utilization of dental services, Richards (1971) mentioned that the results from large surveys as well as from studies with limited population indicate two factors consistently appear: (1) the higher the income of the individual or the family, the more these persons actually use dental services, (2) women, more than men, use dental services. When these two are linked together, a third factor appears: children from high income families, whose mothers go frequently to dentists, will also use dental services more often. The reverse pattern also shows up regarding low-income families, with or without children.

Canadian dental surveys in 1954 (Canadian Dental Association, 1954), 1958 (J. Canadian Dental Association, 1959) and 1963 (Canadian Dental Association, 1966) have shown utilization rates of 35%, 34%, and 40% for those three years. In another study (Dental Health Division, Ontario, 1971), it was shown that among persons with less than $4,000 annual family income, 39% had had no check-ups while those with $25,000 and over in family income had only 4% with no check-ups. In the Alberta health care utilization study (Greenhill, 1971), he showed that in both urban and rural areas, those with dental visits for the previous year (1967) fluctuated from a low of 25% (for income groups of less than $3,000) to a high of 40.6% (rural) and 53.1% (urban) of those with more than $7,500 income.

In a more recent Alberta study (Bene, Novasky, and Geldert, 1974) of a survey of 1,363 Alberta residents, 57.6% of those with less than $4,000 family income did not visit a dentist while only 15.7% of those with $15,000 and above family income did not visit a dentist for the past two years.

In a study of 1,657 patients of Quebec dentists (Simard and Lussier, 1970), they also found the same pattern of utilization for patients from different income groups. 31.9% of the women as against 27.7% of the men visited a dentist in the last 12 months. In a study of 167 persons in Toronto, 96% of the women reported that they had seen a dentist in the last year as against 59% (Cox, et al, 1972). Even though the Cox, et al, study dealt with a very small (and possibly biased group), the higher proportion of women going to dentists is consistent with the findings from larger surveys. The Canadian Sickness Survey of 1950-1951 (Churchill, et al, 1960) for instance reported that "The rise of in the rate of dental visits per 1,000 population was more marked for women than for men, and the rates for women were also greater than the ones for men." Subsequent reports (Dental Manpower/Population Ratio...Health Manpower Report, #1-73) also mention similar trends regarding women using dental services.

In several earlier studies, notably Lambert and Freeman (1967) and Rayner (1970), they have found that mothers provide a good example for children to receive preventive health care check-ups. If mothers go regularly to dentists, there is an increased likelihood that their children will also be taken or go to dentists. In a study which took place in Trail and North Vancouver, B.C., (Eamer, et al, 1973), this same pattern holds. Two sets of figures are especially striking (Tables 4 and 5, pp. 9 and 10 in Eamer, et al., 1973).

First, when the parents' utilization of dentists, as a child, was regular (visits at least once a year to dentists), they are now visiting regularly as well. Second, if the parents (when they were children) visited dentists regularly, their own children are now visiting dentists regularly. In this same population, their children's utilization of dental services increased as their family income increased (Table 9, p. 15, Eamer, et al., 1973). In Trail, when the family income was less than $5,000, 68% of the children saw a dentist at least once a year as compared with 92% of the children from families with incomes of $20,000 and above. Their respective percentages were 75 and 98 for for families from North Vancouver.

As the above studies indicate, income may be a potential barrier (although we will discuss another viewpoint from Beck, 1973, later). Access to dentists may be another barrier. In a study of dental services for children in rural Manitoba, the survey covered 12,293 children (McCormick, 1966). He found that 57% of these school children have obtained some dental care, although they have not received all the care that is necessary. Some of the dentists in the area tend to be fairly "conservative" in their dental treatment but possibly this is due to the fact that one third of the dentists in rural Manitoba are over 60 years of age. The more serious implication of this study is that 43% of the school children have never seen a dentist -- thus, regardless of how their parents may feel or have actually used dentists themselves, a large number of the 5-14 year olds have never had the opportunity of establishing some regular routine regarding dental health care. Thus, it is not too surprising to find that in a survey carried out by the West Kootenay, B.C., Health Unit (Goodacre, et al., 1966) among 312 residents in the Trail area, that "respondents" awareness of the value of these dental health measures -- oral hygiene, dietary practices, professional dental care, and use of fluorides -- was not translated into routine practice."

At the other end of the age spectrum, dealing with older persons, Banting (1971 and 1972) undertook two small studies to determine the amount of dental care needed. His findings among the elderly continue to sustain the general pattern of dental health care mentioned by other investigators. In the 1971 report, he studied two groups of elderly: 119 residents of metropolitan Toronto aged 65 and over who used the University dental clinic between 1967-1968 academic year and another group of 236 persons scheduled to move into a public housing unit. Before the final sample was determined, he found that of the 119 who went to the University Dental Clinic, 51.3% were women and 48.7% were men. In the final sample, 76 persons were chosen from the first group and 70 from the second group.

Banting (1971) found that the utilization was similar in both groups, of those who visited dentists during the last year. However, in the Clinic group, 11.3% visited the dentists over 20 years ago, whereas this was nearly doubled (20%) for the Housing group. Beyond the cost factor which inhibited some from visiting dentists, another interesting finding emerged. Almost all of the clinic group felt something was wrong with their teeth or dentures, whereas two-thirds of the housing group who knew about the clinic felt that there was nothing wrong with their teeth. Thus, even though they knew about the clinic and could have had access to the clinic, they did not feel that they needed any dental care. This point will also be discussed later when we report on findings by Bulman, et al. (1968) when they discuss the issue of demand and need of services.

In a much more extensive survey of 288 randomly selected aged (65+) in Hamilton, Ontario, Banting (1972) and his colleagues actually carried out an intraoral examination of the patients' hard and soft tissues, assessed any prosthetic appliances that were present and recommended the appropriate treatment.

He found that 66% of the 288 examined were completely edentulous. Some form of dental treatment was recommended for 169 persons examined. Of the 190 who were edentulous, 47.4% needed treatment, whereas of the 98 persons with one or more teeth, 80.6% needed treatment. Banting again mentioned that even though the objective dental needs were high, ".... the demand for dental services by the study group was extremely low. Less than one in every five persons interviewed had visited a dentist within the past year and less than half had been to the dentist within the past five years."

> Further, over 40% of the study group mentioned that they were aware of some problem with their teeth or dentures.... when this subjective assessment was compared with the treatment recommendations ... 82% of those persons who felt something to be wrong .... did not require any treatment and 56% of those who felt nothing to be wrong... actually required treatment. (Banting, 1972, p. 513)

Most of the studies mentioned above dealt with patients in Canada who had to pay for their dental services. Banting's University Clinic group probably paid a minimal amount. One might assume that if there is no "out of pocket" expenditure involved, that persons would take full advantage of dental services. In a very limited study of 52 welfare patients (Bodnarchuk, 1967) who received dental care in a private dentist office, Bodnarchuk found that half of the patients failed to complete a prescribed course of treatment. Included in this group were 41 children and seven adults "who would not incur any cost for treatment rendered."

Four children required extraction of all their teeth. Because appointments were made for these welfare patients and hence the scheduled hours were "wasted," the author felt that some kind of deterrent fees should be charged by private practitioners who treat welfare patients.

In a similar study among 1,303 children in a preschool "Head Start" Dental Program in Boston (Jong and Leske, 1968), whose children also received free dental services, the authors found that of a subsample of 161 children, 50.3% completed treatment, 17.4% received partial treatment (kept at least one appointment), 30.4% received no treatment, and 1.9% were lost to follow-up. Although the Bodnarchuk and Jong and Leske findings are discouraging to dental practitioners, in terms of "wasted" time, various findings stated above tend to indicate that going to dentists is a "middle-class" phenomenon and it would be fatuous to apply "middle-class" types of assumptions or reasoning regarding "missed" dental visits to welfare patients who have very different life styles.

ISSUES RAISED

In this very brief report of some of the findings from the Canadian studies on utilization of dental services, one of the consistent factors that seem to determine "high" utilization is that when family income increases, individuals use dental services more. Thus, the second step in this reasoning process is that if some form of provincial dental insurance were instituted the dental needs of the population would be cared for. Implied in the various studies reviewed above is that dental insurance may not necessarily increase the utilization of dental services. If one were to examine the current health insurance schemes of various provinces in Canada, persons from lower socio-economic and lower educational

and occupational groups are just beginning to catch up in their pattern of usage.

In a recent paper on "Economic Class and Access to Physician Services Under Public Medical Care Insurance" in Saskatchewan, Beck (1973) examined data on "non-use" of health care facilities from 1963-1968. Using the "iceberg model," one way of looking at utilization could be depicted in such a way that the "proportion of the iceberg which is above water represents those needs which actually receives attention of physicians." Thus, public medical insurance would mean that the iceberg would float higher in the water. He goes on to say,

> In studying non-use...we are looking at the iceberg from another direction -- from the end rather than from the side. The iceberg (as viewed from the end) (has) two subsets of needs for users and nonusers. The subset of non-users may also be dissected by income class. As medical care insurance is introduced and the iceberg rises, the proportion of nonusers in each income class may be expected to change. (Beck, 1973, p. 343)

Beck examines the percentages of "zero-users" per income class (no income, $1,000-1,499, $1,500-2,499, $2,500-4,999, $5,000-9,999, $10,000-14,999, and greater than $15,000) for general practitioner services, specialist services, complete examinations, regional examinations, laboratory testing, home and emergency visits, hospital visits, major surgery, and minor surgery, for the years 1963-1968. His general conclusions are:

First, prior to the introduction of public medical care insurance, 47% or more of the lowest income class had no contact with physicians as against 10% for the highest income class.

Second, as people became more familiar with the absence of financial charges for medical care, the rates of accessibility increased more rapidly for the lower-income classes. Some of the needs of the low-income classes were met. This finding is consistent with that of Bice, Eichhorn, and Fox (1972) who found that in the U.S. the low income groups and high income groups are seeing physicians at approximately the same rates (4.7 vs. 4.3 physician visits per year).

Third, even after six years of experience with public medical care insurance, "a disparity in access by income class still remains"(ital. ours). Thus, low-income classes still display "less accessibility to services of physicians."

Finally, both services which are primarily patient elective and those which are primarily physician elective manifest disparity in accessibility by income class. While patient elective services show relative reductions in levels of accessibility, physician elective services show little change over time.

Beck goes on to raise a crucial policy question: "What levels of accessibility should be regarded as nonequitable? An implicit assumption in the debate about Medicare in North America is that the socially desirable rates of utilization and accessibility are those generated in the medical care delivery system in the abscence of financial barriers.... Whether or not they are socially tolerable is an issue for policy makers to consider." (p.355)

METHODOLOGICAL SHORTCOMINGS

What we have stated earlier is that a single indicator of how many times a person utilizes dental services or what proportion of persons use these

services is not sufficient in giving a full picture of the state of dental health of any population. Yet, in many of the Canadian studies, thus far, we only have a gross indication (and possibly an unfair assessment) of how many persons are going to see dentists -- whether or not they need to see dentists. Methodologically, most investigators have not reported on two important problems: first, what are the objective states of dental health of the persons surveyed? Second, what over-all conceptual framework was established in their studies?

To be sure, the first question we raised leads to the second. First, one does have to establish the fact that so many persons are going to see dentists or not -- thus the various Canadian health and sickness surveys are highly necessary to establish some base numbers. Possibly, we still do not have sufficient numbers of these national surveys so that we would have some clear idea of the trends over time. However, it seems to us, that most studies, whether on a national or a local level, are still being undertaken to obtain a count of persons who went or did not go to dentists. Clearly, by now, there is quite a bit of consensus that certain persons from certain income or educational levels are more or less likely to seek out dental services. We have, as yet, very little information on the types of objective dental needs of these persons. From Banting (1972), even though his study dealt with a small number of older persons, we have a very fine example of how the persons <u>perceive</u> their dental health needs can be measured against their <u>actual</u> dental needs, based on an intraoral examination.

The recent British study by Bulman, et al (1968) establishes very clearly that the population surveyed in Salisbury and Darlington, based on self-assessment, feel that they do not need any type of dental care -- sixty percent in both towns mentioned that.

However, dental examinations indicated that approximately 75% of the people in both towns definitely needed some dental care. If the self assessments were matched with the dental examiner's assessment, the ratings could be summarized as follows:

> Therefore, by the examiner's criteria, 30 per cent (Salisbury), 25 per cent (Darlington) assessed their dental health correctly; 5 per cent were too pessimistic; and 65 per cent (Salisbury), 70 per cent (Darlington) too optimistic. (Bulman, et al., 1968, p.32)

The importance of this study as a "model" for future dental utilization studies cannot be overemphasized because this is one of the few studies that have carefully balanced the objective dental health status of the population surveyed with their self assessments. Beyond that, it delineated the dental problems faced by partial or full denture wearers as against those with some teeth. In the Salisbury sample, 42% had no teeth at all and in Darlington's 52% of the sample had no teeth. Most persons in these groups felt that since they are now wearing dentures, they no longer need to see dentists regularly and are not aware of the fact that even dentures require periodic fittings or readjustments.

Thus, without the factual knowledge of the state of specific dental health (number of teeth remaining, etc.), it would be difficult to know precisely what significance it is that so many persons have gone to a dentist the previous year.

We have also raised a second question, that of a conceptual framework in the various dental utilization studies. At present, it seems that most Canadian dental studies proceed along the line of "need to know how many are going to dentists."

Most investigators are undoubtedly aware of the psychological, social, organizational, and structural determinants of why persons seek dental services. Andersen (1968) and Andersen and Newman (1973) have suggested some of the societal and individual determinants in health (and dental health) utilization. In his earlier model, Andersen (1968) hypothesizes that there are certain predisposing factors (family composition, social structure, and health beliefs), which lead to enabling factors (family resources, and community resources), that result in a need (illness and response) of the individual and his subsequent use of some health services. In a subsequent paper, Andersen and Newman (1973) consider societal determinants (technology and norms) and health services system (resources and organizations) as they affect the individual determinants in the use of health services. In this paper we certainly would not want to review at length the framework which Andersen and Newman have very carefully developed. However, we would like to consider some of the Canadian studies within the framework that they have proposed.

Basically, what Andersen and Newman, as well as Beck and Bulman, et al., are suggesting is that individual or group utilization of dental services depend partly on the inequities within the health (or dental health) system itself. It is not sufficient to point the finger at the individual consumer and plead with him or her that he should go and see a dentist more often or implore him to study and understand the good hygienic principles. If there are current inequities, such as mal-distribution of dentists in rural Manitoba as against Winnipeg, then it does not matter much whether the person is quite willing to go. In all the Canadian studies, all these factors that Andersen, Newman, Beck, Bulman, et al. have mentioned have all been implied in the studies reported.

But no one has pulled these strands together in a single study or in a series of studies that are programmed to investigate, in a systematic fashion, what relationships there might be between these factors.

A PROPOSAL

Perhaps it is premature to suggest that dental utilization studies in Canada should move from a more descriptive level to a more analytic one, involving a fairly tight conceptual framework. The type of framework that is suggested by Anderson and Newman may take years to develop, and a certain degree of sophistication regarding all the research potentials is needed before research can move at that level. However, on a less ambitious basis -- and yet a highly sophisticated model -- the type of research undertaken by Bulman, et al, or even by Banting, is within the capability of investigators in the immediate future. Investigators in Edmonton, Saskatoon, and Vancouver are already participating in a World Health Organization/International Collaborative Study of Medical Care Utilization (including a study of dental care utilization) with six other countries (Finland, Poland, Yugoslavia, U.K., and Brazil) and some of the preliminary results are forthcoming. However, this study collected data at the individual and household level and does not go into the organizational and social structure levels.

Within the dental area, the World Health Organization/Division of Dentistry (USA) has also launched an International Collaborative Study of Dental Manpower Systems in Relation to Oral Health Status. Six countries are participating in this study: Australia, Bulgaria, Federal Republic of Germany, Japan, New Zealand, and Norway.

The major criteria for selecting the countries, as outlined by Cohen (1974) were based on four structural features: degree of government or private enterprise, use or non-use of auxiliaries, system of financing, and definition of target groups for receipt of services. Hopefully, the results of this study will enable interested investigators to gain some understanding of the relationships between organizational components and contexts of services rendered and the individual determinants of needs of services sought.

One proposal which we would like to offer is that in Canada a modified attempt be made to replicate the WHO/International Collaborative Study in the various provinces. At the organizational level, we would need to know how dentists are currently organized to provide services, where they are located, their specialties of practice -- institutional settings of practice (in solo, group, clinics, etc.), length of practice, and the like. At the individual consumer level, we need to know the individual determinants (as outlined by Andersen and Newman, 1973) which lead them to the dentist offices. At the clinical level, we need to establish (as Bulman, et al., 1968, has suggested), the objective dental status of individuals through standardized dental examinations. If we are to incorporate Beck's suggestions (1973), we need to sample the non-users as well to determine the other side of the coin: Why do individuals stay away from dentists? This would enable us to determine, in a more realistic fashion, why some persons are not using or will never use dental services. If the above information were available, then we can begin to formulate more realistic provincial or national policies regarding dental health care, dental manpower, and establish needs for public dental health insurance.

REFERENCES CITED

ANDERSEN, R.

1968 A Behavioural Model of Families' Use of Health Services. Research Series No. 25. Chicago: Center for Heal Administration Studies, University of Chicago.

ANDERSEN,R., and NEWMAN, J.F.

1973 Societal and individual determinants of medical care utilization in the United States. Health and Society. Milbank Memorial Find Quarterly 51:95-124, Winter.

BANTING, D.W.

1971 Dental care for the aged. Canadian Journal of Public Health 62:503-508, November-December.

1972 A study of dental care cost, time and treatment requirements of older persons in the community. Canadian Journal of Public Health 63:508-514, November December.

BECK, R.G.

1973 Economic class and access to physician services under public medical care insurance. International Journal of Health Services 3:341-355.

BENE, A.A., NOVASKY, W.E., and GELDART,S.G.

1974 Dental care in Alberta: public attitudes, utilization patterns and socio-economic determinants. Journal of the Canadian Dental Association 40:444-451, June.

BICE, T.W., EICHHORN, R.L., and FOX, P.D.

1972 Socioeconomic status and use of physician services: A reconsideration. Medical Care Vol X, No.3: 261-271.

BODNARCHUK, A.

1967 Utilization of dental services by welfare receipients in a private dental office. Journal of Canadian Dental Association 33: 126-130, March.

BULMAN, J.S., RICHARDS, N.D., SLACK, G.L., and WILLCOCKS, A.J.

1968 Demand and Need for Dental Care: A Socio Dental Study. Oxford: Oxford University Press.

CHURCHILL, G., MONTEITH, J.W.

1960 Illness and Health Care in Canada, Canadian Sickness Survey 1950-51. Ottawa: Queen's Printer and Controller of Stationery.

COHEN, L.K.

1974 World Health Organization/Division of Dentistry International Collaborative Study of Dental Manpower Systems in relation to oral health status. Paper presented at Symposium on Comparative Sociology of Dental Health, VIII World Congress of Sociology, Toronto, Canada.

COX, L., CRUMP, J., YOUROUKIS, A.

1972 Attitudes of the public towards dental health. University of Toronto. Mimeo

DENTAL HEALTH DIVISION

1971 Demand for dental services in affluent communities, Ontario. Ottawa: Ministry of Health and Welfare.*

DENTAL MANPOWER/POPULATION RATIO ESTIMATES FOR CANADA UNDER FOUR SITUATIONS HEALTH MANPOWER REPORT #1-73. D.W. Lewis, B.I. Brown March 1973.

(EAMER, D.A., see SHAW, R.P.)

GOODACRE, R.H., HOLE, L.W., WILLIAMSON, M.

1966 Survey of community knowledges, attitudes and habits in regard to four dental health practices as they apply to children. Journal Canadian Dental Association 32:417-424.

GREENHILL, S.

1971 Alberta health care and utilization study (1968 and 1970). Canadian Journal of Public Health 62:17-22, January-February.

JONG, A. and LESKE, G.S.

1968 Utilization and cost of dental services for preschool children in Boston's head-start program. Journal of Public Health Dentistry Vol. 28, No. 2 - Spring Issue: 126-134.

LAMBERT, C. and FREEMAN, H.E.

1967 The Clinic Habit, New Haven, Conn: The College University Press.

McCORMICK, C.H.

1966 Availability and utilization of dental services by rural Manitoba children 32: 280-285, No. 5.

* The Annex to this report (p. 83-111) contains a national report on dentist utilization entitled, Dental Health Care Received in 1967.

PROCTOR and GAMBLE COMPANY OF CANADA

1962 Visits to a dentist in the past six months. Circulated by B.B. Everest of Proctor and Gamble Co. of Canada Ltd.

RAYNER, J.F.

1970 Socio-economic status and factors influencing the dental health practices of mothers. American Journal of Public Health Vol. 60, No. 7: 1250-1258.

RICHARDS, N.D.

1971 Utilization of dental services. In Social Science and Dentistry. Federation Dentaire International, Richards N.D. and Cohen, L.K., eds. The Hague, Netherlands: A. Sijthoff.

SHAW, R.P., HUMPHREYS, E.W., STIRLING, M.E. and WILLIAMSON, M.F. *

1973 Dental care in urban British Columbia. Consumer Survey Report for Ministry of Health Services, Hospital Insurance and Division of Dentistry Health Branch.

SIMARD, P., and LUSSIER, J.P.

1970 Les soins dentaires au Quebec: Methologie carateristiques de i'echantillionnage, frequence des visites au cabinet deutaire. Journal of Canadian Dental Association 36: 265-272, No. 7

* D.A. Eamer and C. Taylor were also co-authors of this study with Eamer as the principal author.

ANNOTATED BIBLIOGRAPHY

Banting, D.W.

1971 Dental Care for the aged. Canadian Journal of Public Health 62: 503-508, November - December.

Location of Study: Metropolitan Toronto

Population: 76 users of University Dental Clinic, and 70 residents of a housing project, all 65+ age.

Date of study: 1969

Purpose: To find out whether socio-economic, physiologic, and emotional factors are influental in the aged's obtaining dental care he needs or wants.

Method: Personal interviews with questionnaire

Results: Clinic users did not go to private dentists because of cost; housing project group did not visit any dentists because they did not feel any treatment was necessary. The latter group would favour the establishment of a dental clinic in the housing project and they would use it.

1972 A study of dental care cost, time and treatment requirements of older persons in the community. Canadian Journal of Public Health 63: 508-514, November-December.

Location of Study: Hamilton, Ontario

Population: 228 persons age 65 and over

Date of study: 1971

Purpose: To determine the oral health status of a randomly selected group of older persons in Hamilton and to estimate the resources necessary to satisfy their needs and desires and to identify some factors that may influence their dental health practices.

Results: Almost 60% required some form of dental treatment, with average of $75/capita treatment recommended. However, demand for treatment was extremely low--less than 20% had visited a dentist in the last year and less than 50% visited a dentist in the last five years. Over 40% mentioned awareness of some dental problem. When subjective assessment was compared with treatment recommendations, 82% of those who said they needed treatment did not and 56% of those who said they did not need treatment required some treatment.

Bulman, J.S., Richards, N.D., Slack, G.L., and Willcocks, A.J.

1968 Demand and Need for Dental Care: A Socio-Dental Study. Oxford: Oxford University Press.

Location of study: Salisbury and Darlington, U.K.

Population: 465 (Salisbury) and 516 (Darlington) adults

Date of Study: 1963

Purpose: To obtain information on community dental health and the individual's attitude toward dental health and dental services.

Method: Brief dental examination of all persons on dental, peridontal, dento-facial, and prosthetics aspects of oral health. Personal interviews with all persons on their attitudes toward dental health.

Results: Dental examinations revealed that 3/4th of population need some dental care; however, the individuals' perception of their dental health was good. Thus, the demand far exceeds the perceived needs of the population.

Bene, A.A., Novasky, W.E. and Geldart, S.G.

1974 Dental care in Alberta: public attitudes, utilization patterns and socio-economic determinants, Journal of Canadian Dental Association 40:444-451, June.

Location of Study: Province of Alberta

Population: 1,363 adults

Date of Study: 1971

Purpose: To further explore the effects of socio-economic variables upon dental care.

Method: Personal interviews with a quota sample of all residents of Alberta on attitudes and behaviour toward dental care and the dental profession of Alberta.

Results: Though respondents paid lip-service to the value of periodic dental check-ups, the difference between responses and actual practice was substantial. Dental visits were more frequent among respondents with higher incomes and education; most approved the principle of insured dental services; few complaints over delays in obtaining dental appointments; most relied on advice of friends and neighbours in chosing dentists and went to them because of convenient office locations or the dentist was the only practitioner available.

Beck, R.G.

1973 Economic class and access to physician services under public medical care insurance. International Journal of Health Services 3:341-355.

Location of Study: Province of Saskatchewan

Population: 40,00 families in each year, 1963-1968, from data supplied by Medical Care Insurance Commission and Saskatchewan Hospital Services Plan.

Date of Study: 1963-1968

Purpose: To present descriptive data on access to physician services by income class where services are provided under a public medical care insurance program

Method: 10% sample of all records provided by the two agencies in Saskatchewan, named above.

Results: Although this study provides no data on dental utilization the results have implications for dental utilization. In his sample, Beck found that (1) there was a considerable disparity in access to physician services by income class prior to the introduction of public medical care insurance, (2) as people become more familiar with the absence of financial charges for medical care- the rates of accessibility of low income classes increase more rapidly than those of high income classes, (3) even after 6 years of experience with medical care insurance, a disparity in access by income class still remains, and (4) both services which are primarily patient elective and those which are primarily physician elective manifest disparity in accessibility by income class.

Bodnarchuk, A.

1967 Utilization of dental services by welfare recepients in a private dental office. Journal of Canadian Dental Association 33: 126-130, March.

Location of Study: Edmonton, Alberta (private practice)

Population: 52 welfare recipients and 300 non welfare patients.

Date of Study: (not given)

Purpose: To determine what percentage of welfare patients who came to a private office actually completed a specified treatment program, to compare the welfare group with a non-welfare group in the same office, and to compare the need for full mouth extractions and complete dentures by patients under 17 years of age for welfare and non-welfare cases, hours lost due to missed appointments.

Method: Records from 52 welfare patients were compared with records of 300 non-welfare patients in a private dentist office.

Results: Twenty-six welfare patients did not return for dental treatment after radiographic examination, diagnosis and consultation, or completion of part of a proposed treatment plan. Six of these patients failed to appear after radiographic examination, diagnosis, and consultation; and 16 discontinued treatment after radiographic examination, diagnosis and consultation and partial treatment. In the comparable group of non welfare patients only 4 did not complete treatment.

Churchill, Gordon, Monteith, J. Waldo.

1960 Illness and Health Care in Canada, Canadian Sickness Survey 1950-51. Ottawa: Queen's Printer and Controller of Stationery

Location of Study: Dental Data by regions; Newfoundland, Maritimes, Quebec, Ontario, Prairies, British Columbia.

Population: 1,995,000

Date of Study: 1950-51

Purpose: To assess the over-all health status of Canadians in 1950-51.

Method: A record was kept of the care received by patients from qualified dentists. The amount of dental care received was measured in terms of the number of visits made to dentists offices or clinics. Dental treatment received at hospital out-patient clinics was counted but treatment received at school dental clinics was excluded.

Results: About one in seven persons visited dentists in 1950-51, 60% were women. The highest number of persons reporting dental care per 1,000 were in the 15-24 age group and as age rises, the number per 1,000 seeing dentists declined. As income rises, the number of persons seeing dentists/1,000 population also increases...for the age group under 15, those in the highest income groups seeing dentists were 267/1,000 as compated with only 63/1,000 in the low income group seeing dentists.

Community and Health Centre and Student Health Organiation

1971 Dental Report, April 1, 1970 - March 31, 1971. University of Toronto.

Location of Study: S.H.O.U.T. Clinic (Alexandria Park)

Population: 100 patient files on children

Date of Study: Since April 1970

Purpose: A very "loose" survey was made on 100 patient files to see what sorts of dental patients were coming to the clinic.

Method: A survey of 100 patient file cards.

Results: A 7 page report with a few percents. There is no mention of the number of persons studied by age or sex.

Cox, Lynne, Crump, John, Youroukis, Angie

1972 Attitudes of the Public Towards Dental Health. University of Toronto.

Location of Study: George Brown College, Toronto Ontario.

Population: 161 Community College Students, 118 were male, 43 female.

Date of Study: not given

Purpose: To investigate the following: (1) Age-sex specific effect on dental health; (2) Socio-economic effect on dental health; (3) Utilization of dental use (4) Deterrants to regular dental care; (5) Participation in a preventive dental program; (6) Attitude to dental fees; (7) Degree of favourability to Denticare.

Method: Questionnaire designed to supply two classes of information: personal information and dental utilization and attitudes.

Results: Sampling of students were favourable towards preventive dentistry, and towards a government subsidized dental care plan. The greatest deterrant towards those seeking dental care is the expense of the care. Utilization by the students surveyed was somewhat better than the national average, the former being 68% while the latter is 41.4%.

Dental Health Division, Ontario. (Annex of this report is on utilization of D.D.S.)

1971 Demand for dental services in affluent communities, Ontario. Ottawa: Ministry of Health and Welfare.
Location of Study:
2 relatively affluent communities in Ontario.

Population: 227 male and 244 female treatment records

Date of Study: 1966

Purpose: To study the dental care services received by persons under continuing care by qualified dentists. Statistics would be used for future planning or dental services. It was assumed that a direct study of the dental care services received by persons motivated and financially able to undertake the costs of such services would provide a reasonably good measure of the effective demand for dental care.

Method: 19 dentists in location 1 (out of 30 contacted) and 16 dentists in location 2 (out of 32 contacted) -- two affluent communities in Ontario -- supplied records of their patients for study. These patient treatment records covered 1,598 (for males) and 1,726 (for females) per year exposures. This study was done to test certain methods of collecting data which involved utilization of different dental services.

Results: A large number of tables are assembled which describe the results from using certain methods in collecting dental health care received by Canadians in 1967, accross the country, was specially prepared by the Dominion Bureau of Statistics, November, 1969. This survey, involving 35,000 households in Canada was carried out in February, 1968. Only tables are presented, with no discussion of the significance of the content.

Goodacre, R.H., Hole, L.W., Williamson, M.

1966 Survey of Community Knowledge, Attitudes and habits in regard to dental health practices as they apply to children. J. Cavad.D.A., 32: 417-424

Location of Study: Trail, British Columbia.

Population: 361 respondents with 105 respondents with children age 3-10.

Date of Study: 1964

Purpose: To ascertain the present attitudes and practices in the areas of oral hygiene practices, dietary practices, visits to dentists, and use of fluorides.

Method: Personal Interviews

Results: Even though parents are aware of the recommended procedures for good dental health care, their actual routine practice falls far short. For example, nearly all persons knew that their children between the ages of 3-10 should visit dentists once a year, only 70% of those parents with children in that age group brought them to dentists during the last year.

Greenhill, Stanley

1971 Alberta health care and utilization study (1968 and 1970). Canadian Journal of Public Health, 62: 17-22, January-February.

Location of Study: Edmonton (urban center) and Red Deer (rural region)

Population: 1199 household composition of 2308 adults and 1071 children.

Date of Study: 1968

Purpose: To study utilization patterns of Alberta residents before the introduction of Alberta Health Care Insurance Act and after. A rural and an urban area were selected to investigate the health services utilization in 1968 and in 1971. This report is preliminary to the final one.

Method: Personal interviews, using a modified questionnaire that was designed for an International Comparison of Medical Care Utilization Study.

Results: No discussion of dental utilization...However, two tables were presented on dental utilization or urban and rural utilization. No dental health care is insured. However, of those whose health care was insured the proportion of those who saw a dentist within the last year increased as their income increased. In both the rural and urban population, for those who were <u>not</u> insured, the proportion of those who saw a dentist over a year ago decreased as their incomes increased.

Hilditch, J.R., Demanuele, F., Neuman, B.

1974 Flemingdon Park Survey, Don Mills, Ontario: Flemingdon Health Centre, September.

Location of Study: Flemingdon Park, Borough of North York, Ontario.

Population: Random sample of 141 households (467 persons)

Date of Study: 1972

Purpose: To find out the health needs and patterns of health care utilization of residents in the Flemingdon Park area.

Method: Personal Interviews

Results: Approximately 31% of the respondents said they never went for a rountinecheck-up. Women are more likely to go than men. Almost two thirds of pre-school children received no preventive care and half of the children never went to a dentist because of the cost was cited by 42.2% for those with income category, and by 20.8% of those with incomes over $13,000. The reason of "not important" in seeing a dentist was cited by 15.4% in the lowest income group, by 11,8% in the middle group and by 50.1% of those with incomes over $13,000.

Law, Maureen, M Steele, Robert, Kraus, Arthur S.

1973 Measuring the impact of a district health unit-a baseline study. Canadian Journal of Public Health 64: 13-24, January-February.

Location of Study: Urban and Rural Frontenac, Lennox and Addington, Ontario.

Population: 466 households

Date of Study: July 1968 - April 1969

Purpose: To obtain a broad picture of the demographic socio-economic, health status and medical care utilization characteristics of the population sampled, and to determine their specific knowledge and use of and attitudes toward services provided by the Lennox and Addington County Health Unit and the City of Kingston Health Department.

Method: Personal Interviews.

Results: The extent of dental care received was related to family income. No one in the under $3,000 income groups reported "check-ups" whereas 68% did so in the $10,000+ income group. Although the proportion of adults and young families who had been to a dentist the previous year was statistically significantly higher in Urban Frontenac than in Rural Frontenac, and the proportion who had never seen one was significantly lower in Urban Frontenac, the magnitude of the differences in utilization of dental services between rural and urban areas was less than had been expected.

Lawton, David, Williams, J. Ivan, Martinello, B.P.

1973 Determinants of dental care. Canadian Journal of Public Health 64: 343 - 350, July-August.

Location of Study: London, Ontario

Population: 360 questionnaires to mothers with 80% return; data on 800 children.

Date of Study: 1972

Purpose: To explore the determinants of dental behaviour of mothers and their children in the larger London, Ontario area.

Method: Self administered questionnaires which were handed out to the respondents and mailed back to the author.

Results: Even though the children received more dental care than the mothers, the latter's orientation to oral health had a significant influence on the oral health of children. Social class was related to time since last visit, regular child care and reasons for last appointment within the preferred treatment patterns while lower class persons sought sympomatic care only.

McCormick, C.H.

1966 Availability and Utilization of dental services by rural Manitoba children 32: 280-285, Number 5

Location of Study: 20 rural municipalities in Manitoba

Population: 12,293 school children

Date of Study: 1965

Purpose: To determine the effect of relatively availability of dental treatment upon utilization and the dental health of the children. Dental cares is widely regarded more prevalent in rural than urban areas and more serious among children of lower socio-economic status.

Method: Twenty rural municipalities were randomly selected from 190 municipalities. The 12,293 school children surveyed were age 6-15 or grades 1-8. Information collected were on children with premature extractions, fillings, need for immediate attention and health of lower first permanent molars.

Results: The dental situation found were considered "deplorable". More than 57% of the children seek and obtain some dental service but do not necessarily receive all that is required. 38% required immediate attention for relief of pain and discomfort. Proximity of a resident dentist does also affect the amount of attention sought or received.

Proctor and Gamble Company of Canada

1962 Visits to a dentist in the past six months. Circulated by B.B. Everest of Proctor and Gamble Company of Canada, Ltd.

Location of Study: Cross sectional survey in Canada

Population: 1506 questionnaires

Date of Study: 1962

Purpose: To determine what the attitudes and habits of the Canadian public were in relation to the frequency of visits to dentists, topical fluoride applications, water fluoridation, etc.

Method: Mailed questionnaire. Of all the questionnaires returned (1506), there was an admitted bias present in that a higher proportion of responses were received from high-income groups.

Results: The statistics presented in this study have to be viewed skeptically. For instance, of the 559 returned questionnaire in Ontario, 71% said that someone in their family has visited a dentist in the past six months. In other provinces the proportion was equally high: 60% in Maritimes, 58% in Quebec, 61% in the Prairies, and 76% in British Columbia. Across the provinces, more than half to three fourths claimed that dentists did not discuss dental health with them.

There was also an interesting contradictory piece of evidence. In Ontario, 80% of the respondents said that they were never given or sent leaflets by dentists on good dental health practices and 20% said the dentists did not have such leaflets in their offices. Yet, 77% of the respondents have read these pamphlets.

Eamer, D.A., Shaw, R. P., Humphreys, E.W., Stirling, M.E. and Williamson, M.F., Taylor, C.

1973 Dental Health Care in Urban British Columbia, A Consumer Report

Location of Study: Trail and Vancouver, B.C.

Population: 1300 children and their families in Trail and 2036 children and their families in North Vancouver

Purpose: (1) To provide data and descriptive materials which would assist in the design and implementation of a comprehensive programme of dental care for children. (2) To investigate the consumer's attitudes and behaviour with regard to their children's dental care.

Method: Each child underwent an examination to determine his dental status and the mother of each child was interviewed.

Results: This study contains a sizeable amount of data. The authors, however, do not discuss the significance nor the implications of these results. Some of the findings are consistent with other dental utilization studies: e.g., children from high socio-economic groups see dentists more frequently than children from lower socio-economic groups, etc. Nevertheless, much of the basic information is quite valuable.

Simard, P., Lussier, J.P.

1970 Les soins dentaires au Quebec: Methologie; car acteristiques de i'echantillionnage, fre quence des visites au cabinet dentaire. Journal of Canadian Dental Association 36: 265-272, No.7

Location of Study: Quebec Province

Population: First five patients examined after a certain date by dentists in Quebec province.

Date of Study: 1968

Purpose: (Paper written in French) To survey the dental needs of the population in Quebec Province, as seen by the dental profession.

Method: 5,568 questionnaires regarding single patients were circulated among all dental practitioners. Of these, 1,657 were returned by dentists (460 from English speaking dentists and 1,197 from French-speaking dentists).

Results: In this first report (others are to follow), it was found affluent people in Quebec seek more dental care, Anglo-Canadians visit their dentists more frequently, and Quebeckers with more advanced education and higher incomes see the dentist more readily.

This book must be returned to the Dental Library by the last date stamped below. It may be renewed if there is no reservation for it.

270 11-61

Canadian
A: 10155
ER
UNIVERSITY OF TORONTO
an
tion
Harry R. Abbott
Memorial Library
HRA : 10155
FACULTY OF DENTISTRY
124 EDWARD ST.
TORONTO, ONT.